

# SUBMITTAL REVIEW COVERSHEET



Project Name:	Costco US Home Office Corp Campus - Building 5 – Parking Garage CW#17-1048 (W099)	1725 Westlake Avenue N.
Date:	2020-11-23	Suite 300
Submittal No & Description	Submittal # 233100.04 - Fire Dampers	Seattle, WA 98109 206-285-7100
Submittal Date:	2020-11-11	

## Submittal Status:

<input checked="" type="checkbox"/>	No Exception Taken ("Closed" / "Info" / "Revise as Noted")
<input type="checkbox"/>	Exception Taken, Revise and Resubmit ("Open")

Review is only for general conformance with the project design concepts and general compliance with the information given in the contract documents. The contractor remains responsible for full compliance with the documentation, contract drawings and specifications, confirmation of all project specific dimensions, fabrication processes, techniques of construction, coordination of work with that of all other trades, and the satisfactory performance of their work. Submittal content or review comments that revise the design intent reflected in contract documents are not approved without a confirming RFI processed by the project team.

Revision History: Rev 0 Date: 2020-11-23		
Comments:		Status
1.	Greenheck Model DFD-150 - Horizontal a. No exceptions taken to the submitted fire damper. - CLOSED	CLOSED
2.	Greenheck Model DFD-150 – Vertical a. Not included in this submittal. Per Rushing review it does not look like vertical fire dampers have been submitted on yet.	INFO

## Costco Garage

HP Job # 64568

Submittal package: 233100 HVAC ducts & Accessories  
\*Fire dampers



REVIEWED BY John B.  
SUBMITTAL # 233100.04 DATE: 11/11/2020  
SUB/SUPPLIER: Holiday-Parks  
PROJECT: CC5

- ☒ REVIEWED  
☐ REVIEWED AS NOTED  
☐ REVISE & RESUBMIT

FERGUSON CONSTRUCTION'S REVIEW OF THESE DOCUMENTS DOES NOT RELIEVE SUB/SUPPLIER OF ITS RESPONSIBILITY FOR:

- 1) FIELD VERIFICATION OF ALL DIMENSIONS AND JOB-SITE CONDITIONS AND REQUIREMENTS
- 2) COMPLIANCE WITH CONTRACT DOCUMENTS AND ALL APPLICABLE STATE AND CITY ORDINANCES AND REQUIREMENTS
- 3) COORDINATION WITH ALL TRADES.



(1) 46" X 22"

(1) 36" X 24"

## Model DFD-150

Dynamic Rated Fire Damper

1½ Hour Fire Resistance Rating

### Application

Model DFD-150 is approved for use in walls, floors, and partitions with fire resistance ratings less than 3 hours. This model carries a 1½ hour UL fire damper label. UL555 classifies dynamic rated fire damper for use in HVAC systems that are operational in the event of fire.

### Ratings

#### UL555 Fire Resistance Rating

Fire Rating: 1½ hours

#### Dynamic Closure Rating

**Maximum Velocity:** 4,000 fpm (20.3 m/s) vertical mount only, up to 24 in. x 24 in. (610mm x 610mm);  
2,000 fpm (10.2 m/s) vertical or horizontal mount all sizes.

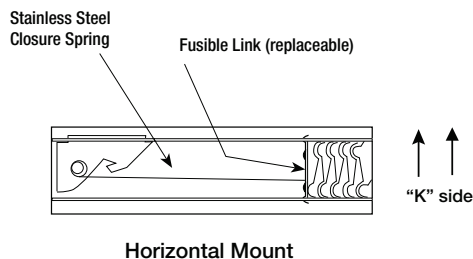
**Maximum Pressure:** 4 in. wg (1 kPa)

Construction	Standard	Optional
Frame Material	Galvanized Steel*	-
Frame Depth	3 11/16 in. (94mm)	-
Blade Material	Galvanized Steel*	-
Closure Spring	Stainless Steel	-
Fusible Link	165°F (74°C)	212°F (100°C)
Mounting	Vertical	Horizontal

\* in gauges required by UL Listing R13317

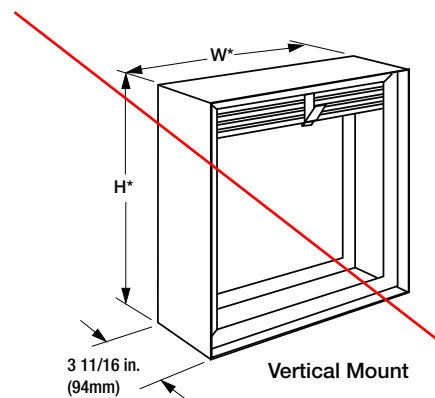
### Optional Features

- One piece retaining angles (POC)
- Transitions (A, B)



See complete marking on product.

UL 555 Classification  
R13317



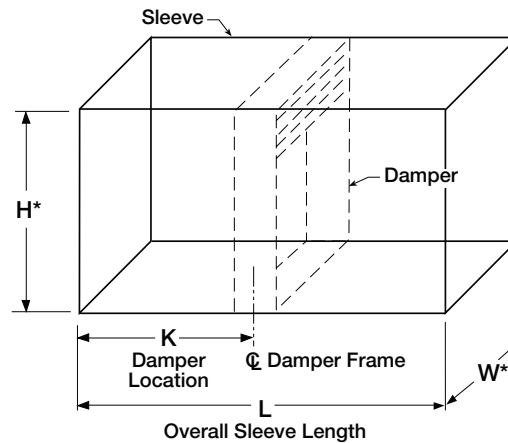
\* These dimensions are furnished approximately 1/4 in. (6mm) undersize in case of nominal sizing.

All fire damper installations require the use of sleeves, angles and methods described in the installation instructions. Sleeves can be field fabricated or factory furnished as a completed damper/sleeve assembly.

Sleeves are galvanized steel and are available in 20 through 16 ga. (1mm - 1.5mm) thicknesses and lengths up to 48 in. (1219mm).

“K” dimension specifies location of damper within the sleeve. Minimum is 4 in. (102mm), maximum is “L” less 4 in. (102mm), which allows for mounting angle installation, and duct connection at each end of the sleeve. If “K” dimension is not specified, it will be provided as one half of “L” dimension (damper centered in sleeve).

**Note: If using access doors, the door should be installed on the “K” side of the damper.**



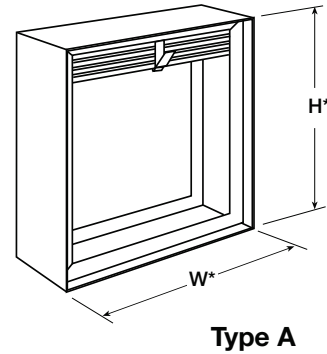
# Type A & B

DFD-150

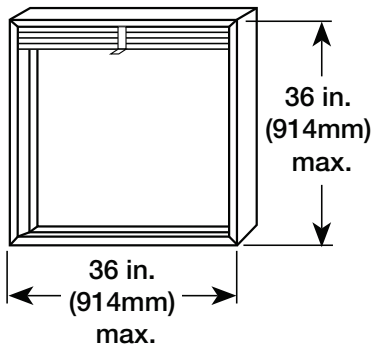
Dampers larger than maximum single section sizes are supplied in two or more sections of equal size. Multi-section dampers are factory assembled ready for installation. (see Greenheck Fire Damper Installation Instructions #481324).

## Size Limitations

Inches (mm)	Type A		Type B	
	Minimum	Maximum	Minimum	Maximum
<b>Single Section Vertical</b>	4 x 4 (102 x 102)	36 x 36 (914 x 914)	4 x 3 (102 x 76)	36 x 31 (914 x 787)
<b>Multi Section** Vertical</b>	NA	72 x 48 (1829 x 1219), 60 x 60 (1524 x 1524) or 120 x 30 (3048 x 762)	NA	72 x 45 (1829 x 1143), 60 x 56 (1524 x 1422) or 120 x 26 (3048 x 660)
<b>Single Section Horizontal</b>	4 x 4 (102 x 102)	30 x 30 (762 x 762)	4 x 3 (102 x 76)	30 x 26 (762 x 660)
<b>Multi Section** Horizontal</b>	NA	48 x 36 (1219 x 914)	NA	48 x 33 (1219 x 838)



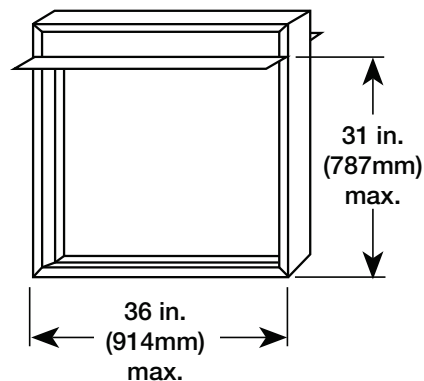
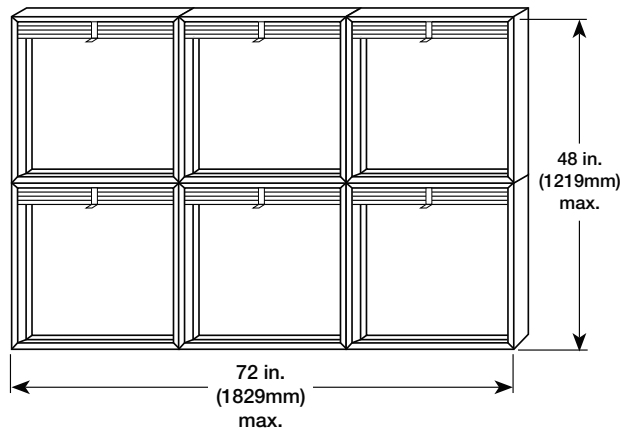
Type A



Type A Single Section

### Multi-Section Limitations - Type A

Maximum damper height is 48 in. (1219mm) when combination width is 72 in. (1829mm) or less.



Type B Single Section

### Multi Section Limitations - Type B

Maximum damper height is 45 in. (1143mm) when combination width is 72 in. (1829mm) or less.

